ABSTRACT

POLE TIP TRIMMED MAGNETIC RECORDING HEAD WITH MINIMAL EDGE ROUNDING

In the present method for manufacturing a magnetic write head a focused ion beam (FIB) tool is utilized to mill the side edges of a P2 pole, in order to provide a narrowed track width. Prior to milling, a thin film layer of material is deposited upon the P2 pole tip. The milling boxes of the FIB tool are properly aligned upon the layer with reference to the location of the P2 pole tip. Milling of the lateral edges of the P2 pole tip is then conducted to the appropriate depth, and the layer of material is removed. The resulting P2 pole tip has sharp lateral edges, rather than the rounded edges that are produced in prior art FIB processing methods that do not utilize the thin film layer. In a preferred implementation, the FIB tool is utilized first to deposit the thin film layer and thereafter to perform the milling operation.